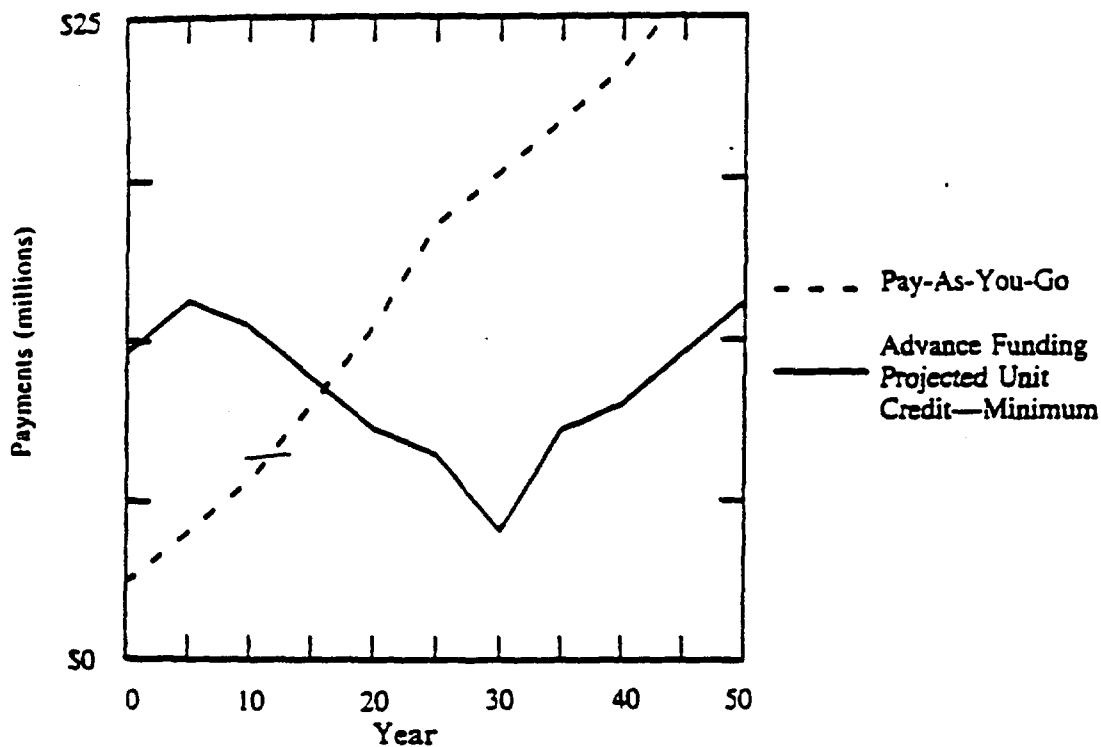


CHART VII.1b
Comparison of Pay-As-You-Go and Full
Funding Methods
Group F (Older—2% Decline):
Medium Trend Scenario



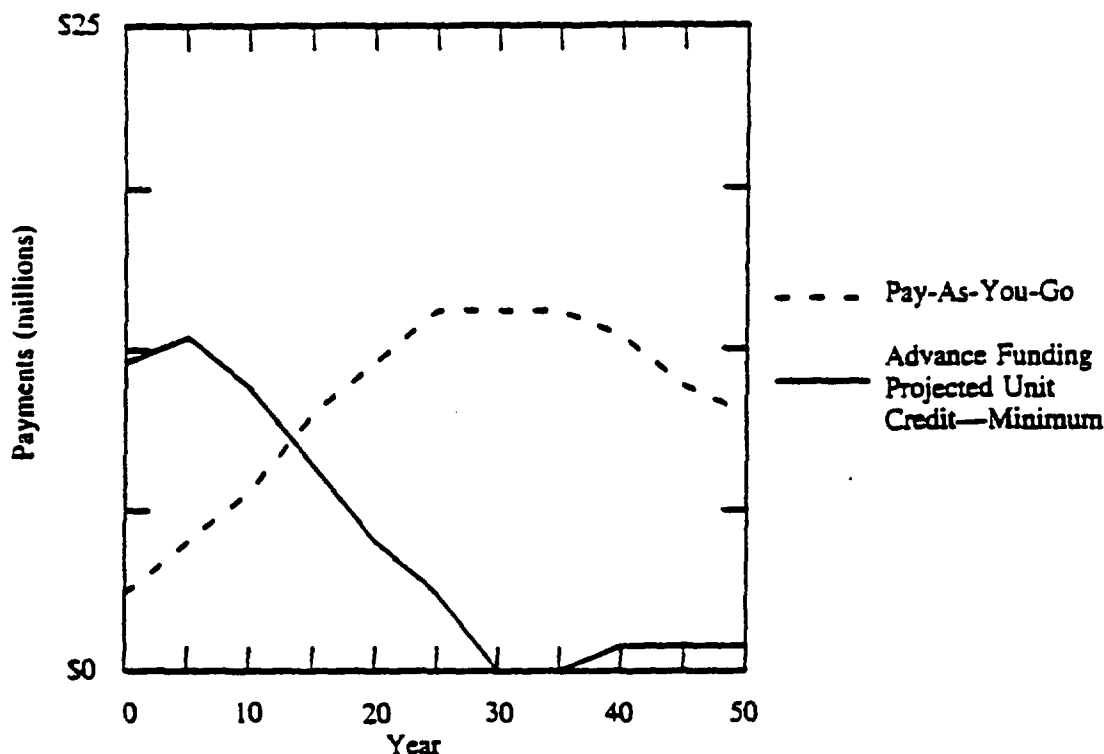
following patterns, which apply generally to each of the model groups and each trend scenario.

- (1) Initially, fund accumulation is more rapid under the Entry Age Normal method than under either the Projected Unit Credit or Aggregate methods.
- (2) In general, for a stable or growing group, the fund buildup under all of these methods is similar after the first 10 years or so.

The fund accumulation that occurs under the modified advance funding methods for Group A is illustrated in table VII.4. The following patterns are evident from this comparison and also apply to the other model groups and other trend scenarios.

- (1) The fund that accumulates under the Unprojected Unit Credit method is substantially lower than that under any of the other methods considered.

CHART VII.1c
Comparison of Pay-As-You-Go and Full
Funding Methods
Group F (Older—7% Decline):
Medium Trend Scenario

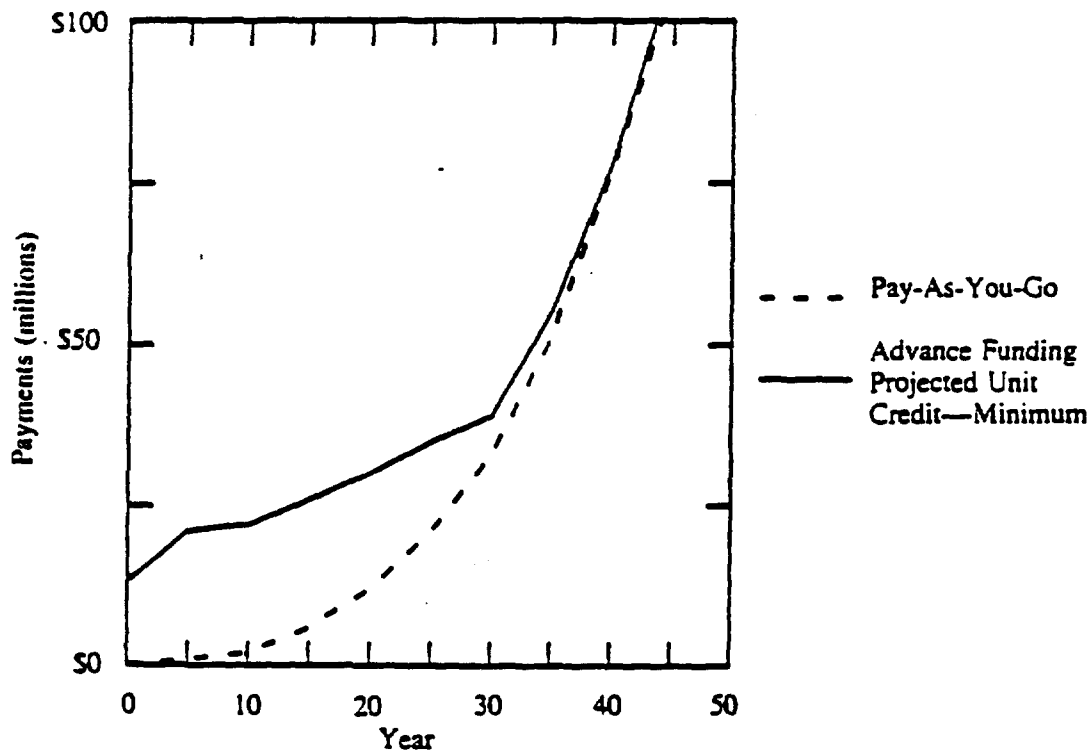


- (2) The Unit Credit Method with No Trend or Discount Rate results in a higher fund than either of the other modified advance funding methods. After year 20, the fund under this method is also higher than that under any of the full funding methods. This is because in the medium trend scenario the annual trend drops below the discount rate in year 21. Therefore, the benefit values produced by the full funding methods at that point will be lower than those based on an assumption that the trend and discount rate are equal (which is, in effect, what this alternative unit credit method assumes).
- (3) After year 25, when the annual trend drops to 5 percent, the fund that accumulates under the Projected Unit Credit Method with Trend Equal to per Capita GNP Growth Rate is essentially the same as that under the Projected Unit Credit method. As long as the trend stays at or below 5 percent, these methods will be identical (except for any differences in amortization payments arising from prior periods).

Costs Per Employee

Table VII.5 summarizes the first-year costs for two funding methods in terms of a cost per employee (all groups are assumed to have 10,000

CHART VII.1d
Comparison of Pay-As-You-Go and Full
Funding Methods
Group H (New—2% Growth):
Medium Trend Scenario



employees in the first year). The pay-as-you-go cost for that year is also shown on the same basis. For groups with higher per capita plan costs than those used in this study, the first-year funding costs would be proportionately higher than those shown in tables VII.6a through VII.6d, which illustrate the pattern of costs per employee over the 50-year projection period for the three groups: Group A (stable), Group F (older, with 2 percent and 7 percent rates of decline), and Group H (new). Pay-as-you-go and Projected Unit Credit—Minimum approaches are included; the cost per employee for each is shown for selected years. Note in table VII.6c the typical cost pattern for a group that is in a period of decline: as the ratio of retirees to employees grows, the pay-as-you-go cost per employee grows rapidly. On the other hand, advance funding costs per employee tend to remain more stable.

The fund that accumulates under the advance funding methods is available to pay future benefits in the case of a cessation of the plan

TABLE VII.3
Comparison of Fund Accumulation: Full Funding
Methods, Group A (Stable), Medium Trend Scenario
(millions)

Year	Entry Age Normal		Projected Unit Credit		Aggregate
	Maximum	Minimum	Maximum	Minimum	
0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
5	115	80	88	62	84
10	235	192	188	154	193
15	322	322	274	274	318
20	426	426	375	375	426
25	544	544	492	492	544
30	668	668	617	617	667
35	944	943	878	878	918
40	1,334	1,331	1,243	1,243	1,273
45	1,885	1,879	1,753	1,753	1,775
50	2,658	2,649	2,470	2,470	2,482

or of employer operations. Under the pay-as-you-go approach, however, there is no such fund.

Charts VII.3a through VII.3d illustrate these annual funding costs as a percentage of payroll, based on assumed average salaries in the first year of \$15,000 or \$30,000; per capita salaries are assumed to increase 5 percent per year. Note the following in reviewing these charts.

- (1) The advance funding method illustrated is Projected Unit Credit—Minimum; however, any of the full funding methods would produce generally similar patterns.
- (2) Because benefit costs are not dependent on salary, the percentage of payroll values vary in proportion to average salaries. For example, if the initial average salary is \$30,000, costs as a percentage of payroll are exactly one-half as great as they are if the initial average salary is \$15,000.

NON-PENSION BENEFITS FOR RETIRED EMPLOYEES

Study of Benefits and Accounting Practices

Coopers & Lybrand

Murray S. Akresh

Murray H. Goldstein

Andrew J. Lawlor

George J. Roccas

Hewitt Associates

Stuart J. Meshboun

Robert D. Ready

Janet E. Shepherd

A Publication of
Financial Executives Research Foundation

Non-Pension Benefits for Retired Employees:
Study of Benefits and Accounting Practices

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Financial Executives Research Foundation
10 Madison Avenue, P. O. Box 1938
Morristown, New Jersey 07960

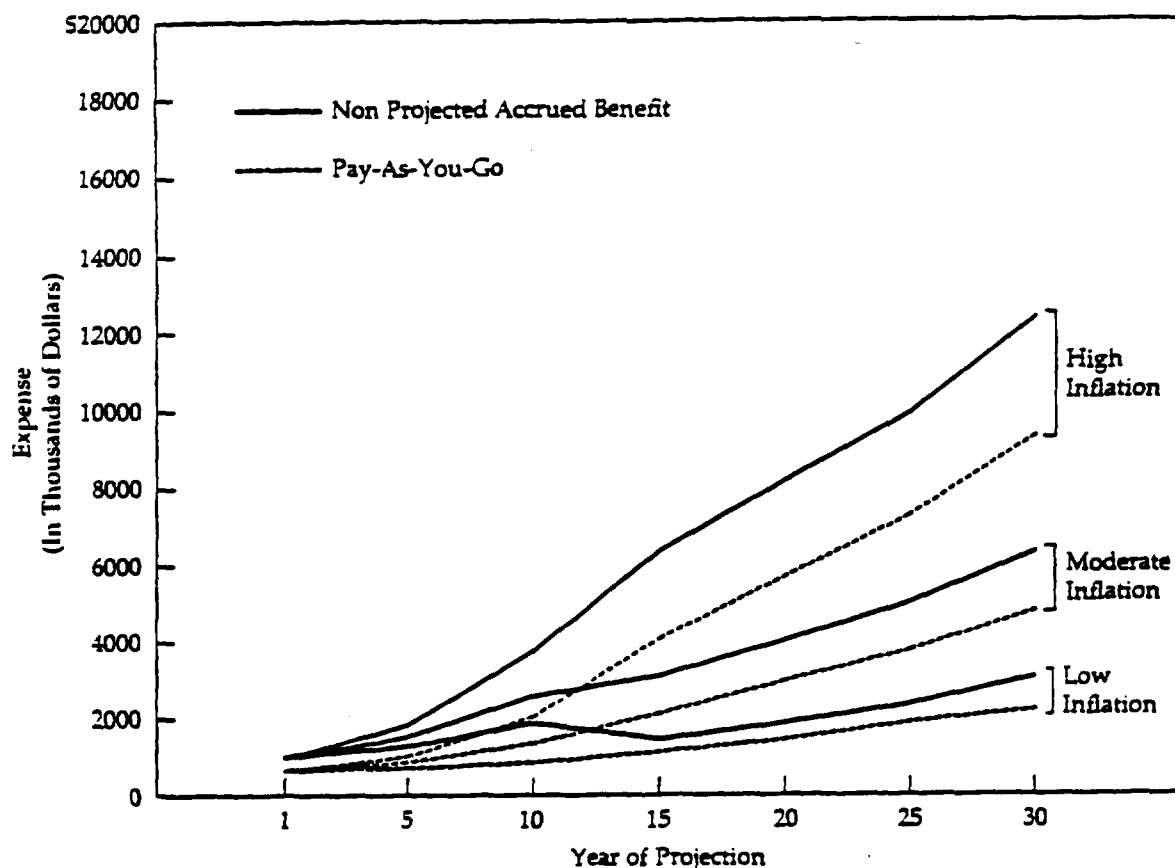
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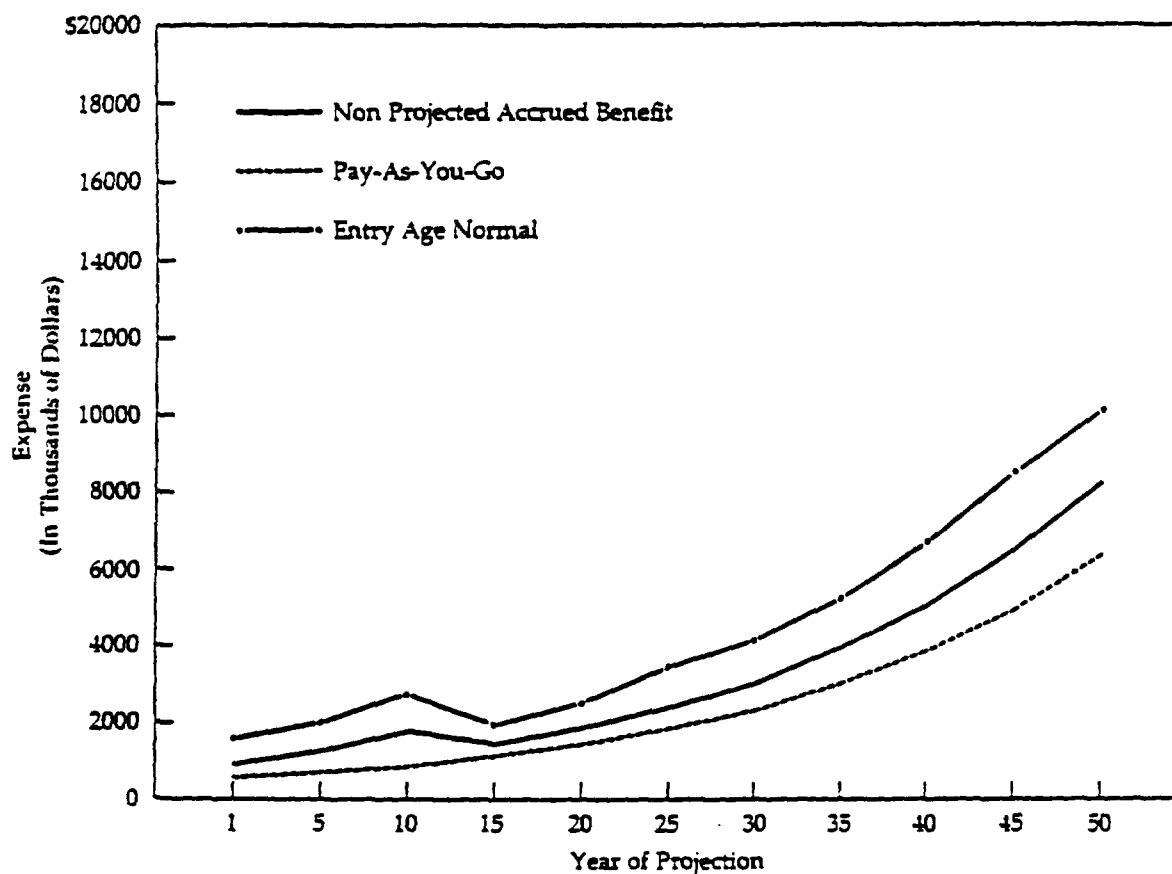
GRAPH 1.3 *Effect of Assumed Health Care Inflation Rate on Expense*

The Modeling Results

Models were developed of the financial results of accounting for other postemployment benefits using alternative actuarial assumptions and actuarial cost methods. The models highlight several critical measurement problems.

Health Care Inflation To assess the effect of changes in the assumed health care inflation rate, models were developed using various assumptions concerning future patterns of health care cost increases. Graph 1.1 depicts the effect on the present value of obligations using zero, low, moderate, and high medical cost inflation. This clearly shows the sensitivity of the present value determination to changes in the health care inflation assumption. For example, the obligation is approximately three times higher using a high inflation assumption than with a low inflation assumption.

GRAPH 1.4 Expense Determined by the Non-Projected Accrued Benefit Method and a Projected Benefit Method as Compared to Expense under Pay-As-You-Go Method



Discount Rate The effect of changes in the assumed discount (interest) rate on the present value of obligations was modeled. Graph 1.2 shows that variations in the discount rate have a dramatic impact on the present value. The liability modeled using an 8% discount rate was about one-third the amount that would result if no discounting were assumed. This illustration assumed no future increase in plan costs.

Comparison with Pay-as-you-go Accounting Because pay-as-you-go accounting is currently the prevalent method, expense models using various accrual methodologies were developed and compared to that method. Graph 1.3 compares expense computed using the non-projected accrued benefit method and the pay-as-you-go method under low, moderate, and high medical cost inflation. The non-projected method does not project or anticipate future health care cost increases. When computing

annual expense under this method, actual cost increases from year to year are recognized as they occur and are spread over future periods as actuarial losses. As seen on the graph, expense will clearly be higher if accrual accounting standards are instituted. Because the non-projected accrued benefit method produces lower expense levels than other accrual methods, the increase in expense would be even more pronounced under the other methods.

Alternative Cost Methods Graph 1.4 compares the expense determined under the entry age normal method, the non-projected accrued benefit method, and the pay-as-you-go method. Because the entry age normal method projects health care inflation, expense is higher in each of the reported years. This significant increase illustrates the variability that could occur if the expense for OPB plans were determined using a projected method with a health care inflation assumption.

APPENDIX 3

A Description of the Economics of the Decision to Prefund PBOPs

Salomon Brothers, Inc.

The Economics of the Funding Decision

Following is an example showing the economics of the funding decision:

- 1) A company arranges for an employee to give up a portion of current compensation in exchange for an obligation of the company to pay \$1,000 in medical benefits 15 years later.
- 2) The beneficiary's marginal tax rate is 31%.
- 3) The company's debt is riskless and carries a rate of 9% annually.
- 4) The company's marginal tax rate is 34%.
- 5) The company does not wish to change its capital structure. It therefore uses the cash saved by the employee's salary give-up to purchase a riskless bond that defeases its retiree medical liability in economic terms, though not necessarily in accounting terms.

The last assumption is critical to the analysis. The company could have chosen to invest the cash in equities or in its business instead, but this would have effectively increased the company's leverage because these investments would not defease the retiree medical liability, and the company's debt (including the retiree medical obligation) would increase. Therefore, the example uses the debt rate for both discounting liabilities and projecting investment results in the following cost illustrations for various funding approaches.

The same reasoning would apply if the retiree medical obligation were a given and the company was deciding whether to fund the obligation. Borrowing the cash and investing it in a riskless bond should not be evaluated against borrowing to invest in equities or capital projects. It merely substitutes conventional debt for retiree medical debt and does not use up any of the company's borrowing capacity, which remains available for other business opportunities.

Under these assumptions, the alternative funding vehicles are as follows:

1. Pay-as-you-go - The \$1,000 payment in 15 years will be tax-deductible and will cost \$660 after taxes. Therefore, the company can earmark enough money today to grow, after taxes, to \$660 in 15 years.

$$\text{Present value} = \$1,000 \times 66\% / (1 + 66\% \times 9\%)^{15} = \$277.74$$

2. IRC 401(h) - The company makes a tax-deductible contribution today that will grow tax-free to \$1,000 in 15 years.

$$\text{Present Value} = \frac{\$1,000}{1.09^{15}} \times 66\% = \$181.20$$

3. VEBA - not collectively bargained. The company makes a tax-deductible contribution today that will grow to \$1,000 net of tax in 15 years.

$$\text{Present Value} = 66\% \times \$1,000 / (1 + 66\% \times 9\%)^{15} = \$277.74$$

VEBA - collectively bargained. Same as IRC 401(h) = \$181.20

4. Substitution - to enable the beneficiary to pay a \$1,000 medical bill, the company must give him a pension payment of \$1,000/69% in 15 years. It makes a tax-deductible contribution today that will grow tax-free to this amount.

$$\text{Present Value} = \left[\frac{\$1,000}{69\%} / 1.09^{15} \right] \times 66\% = \$262.60$$

Evaluation of alternatives:

- 1) The 401(h) account provides a clear saving over the pay-as-you-go method.
- 2) The VEBA matches the 401(h) if it is collectively bargained and therefore, has tax-sheltered earnings.
- 3) If the VEBA's earnings are not tax-sheltered, there is no advantage over the pay-as-you-go method. It gives an earlier but correspondingly smaller tax deduction.
- 4) Substitution of a taxable benefit gives mixed results. It is inferior to the 401(h) account because of the tax obligation of the beneficiary. To compare it with a noncollectively bargained VEBA depends on the period of investment. In this example, the 15 year period is long enough to make the substitution plan's tax shelter on earnings more valuable than the VEBA's tax shelter on the payment to the beneficiary, however, for a shorter period the advantage might be reversed.

The substitution method has another serious disadvantage in that providing benefits through a pension or profit-sharing plan requires the company to comply with numerous requirements. This includes five year vesting in which case, employees who would not qualify for retiree medical benefits would still be able to collect the "substitute" benefits from the pension or profit-sharing plan.

Source: Salomon Brothers, "The Financial Executive's Guide to Retiree Medical Benefits", July 1991.

APPENDIX 4A

**Net Present Value Analysis
of
Each Utility's Prefunding Proposals**

These net present value comparisons were developed from data prepared by GTEC, Pacific Gas & Electric, Southern California Gas Company, Southern California Edison Company, and Southwest Gas Corporation. They are intended to reflect each PBOP funding alternative contained in each utility's Phase II Comments and Testimony.

Comparisons for Pacific Bell and San Diego Gas and Electric Company have not been included in this analysis. DRA concluded that the data provided by these utilities was either not available or not appropriate to use in comparing funding alternatives. Most specifically, Pacific Bell alleges that it does not have adequate computer capacity to generate the data series. San Diego Gas and Electric Company's numerical data series are based on a "closed group projection" which is inappropriate for comparing different funding alternatives. (See page xxxvii, Employee Benefit Research Institute Education and Research Fund, Measuring and Funding Corporate Liabilities for Retiree Health Benefits (Washington, DC: Employee Benefit Research Institute, 1988.) in Appendix 2.)

TABLE I

Summary of Net Present Valuations
of
PBOP Funding Alternatives
(Dollars in Thousands)
(9% Discount Rate)

Utility	Full SFAS 106	Partial Funding	PAYGO
SoCalGas	NA	\$ 357,439	\$ 188,978
Edison	\$ 863,900	935,400	546,500
GTE	919,348	NA	445,513
PG&E ¹	1,798,200	1,340,600	555,000
SWG	24,157	NA	15,118

¹ Medical Only.

TABLE II

Analysis of Individual Utilities

SOUTHERN CALIFORNIA GAS

Postretirement Benefits Other than Pensions

(\$ in thousands)

	PREFUND VEBA	PAYGO
1991	42,154	10,526
1992	31,655	10,718
1993	32,247	11,938
1994	32,362	13,435
1995	32,556	14,022
1996	32,787	15,143
1997	33,072	16,366
1998	39,873	18,430
1999	42,584	20,069
2000	43,866	22,097
2001	45,448	24,658
2002	46,860	26,153
2003	48,287	28,265
2004	50,592	32,446
2005	52,779	36,196
2006	54,496	38,405
2007	39,851	42,437
2008	41,090	44,704
2009	42,352	51,031
2010	43,786	56,289
@NPV	0.00%	828,697
	9.00%	533,328
	10.49%	188,978
		164,082

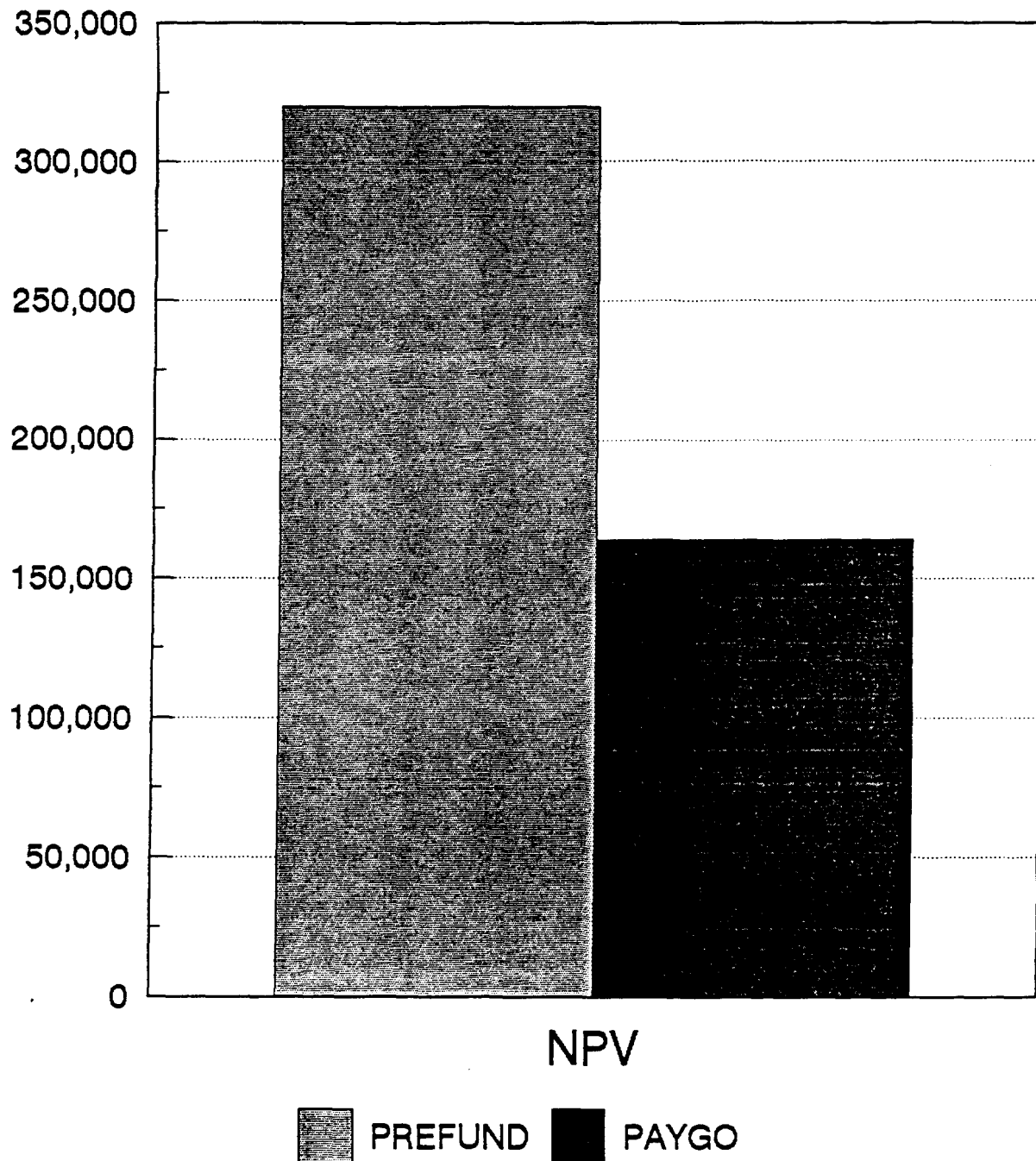
Source: Cost Savings to Ratepayers if Postretirement
Benefits other than Pension are Prefunded
Testimony of John K. Peterson
Tables I & II

SOUTHERN CALIFORNIA GAS

Postretirement Benefits Other than Pensions

Net Present Value at 10.49%

\$ in thousands



SOUTHERN CALIFORNIA EDISON

Postretirement Benefits other than Pensions
(\$ in millions)

YEAR	FULL	PARTIAL	PAYGO
EOY	PREFUND	FUNDING	

1993	99.0	100.0	34.0
1994	98.0	100.0	36.0
1995	98.0	100.0	38.0
1996	97.0	100.0	40.0
1997	96.0	99.0	43.0
1998	94.0	99.0	45.0
1999	93.0	98.0	47.0
2000	91.0	98.0	49.0
2001	89.0	97.0	55.0
2002	89.0	97.0	61.0
2003	88.0	97.0	67.0
2004	87.0	98.0	73.0
2005	86.0	98.0	79.0
2006	86.0	99.0	82.0
2007	85.0	99.0	84.0
2008	84.0	99.0	87.0
2009	83.0	100.0	90.0
2010	82.0	100.0	92.0
2011	81.0	100.0	96.0
2012	81.0	101.0	99.0
2013	49.0	70.0	102.0
2014	50.0	70.0	105.0
2015	51.0	71.0	108.0

@NPV	0.00%	1,937.0	2,190.0	1,612.0
	9.00%	863.9	935.4	546.5
	10.59%	774.0	833.3	469.7

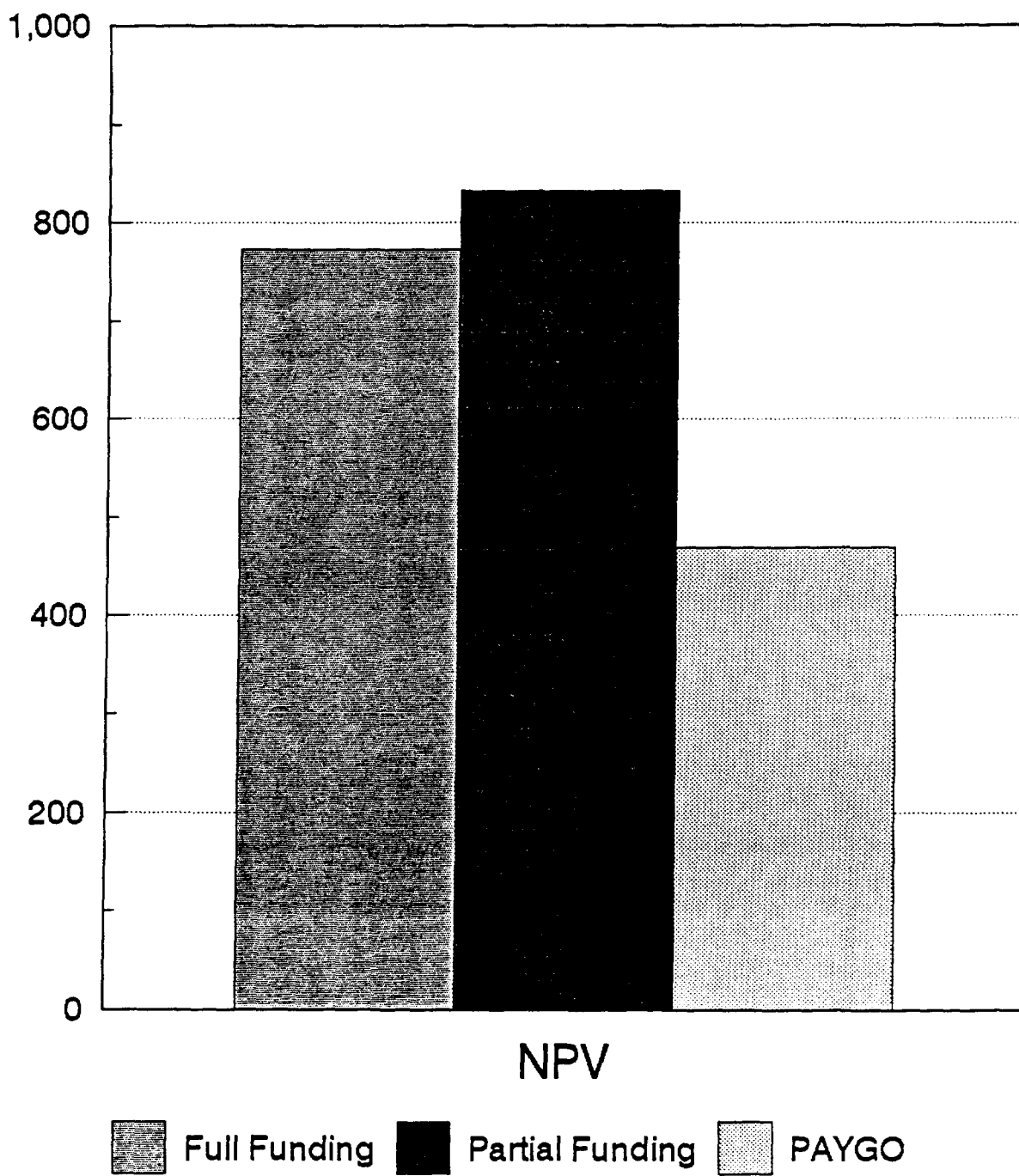
Source: DR. 2-sce Sept. 1991

SOUTHERN CALIFORNIA EDISON

Postretirement Benefits other than Pensions

Net Present Value at 10.59%

\$ in Millions



GTE CALIFORNIA

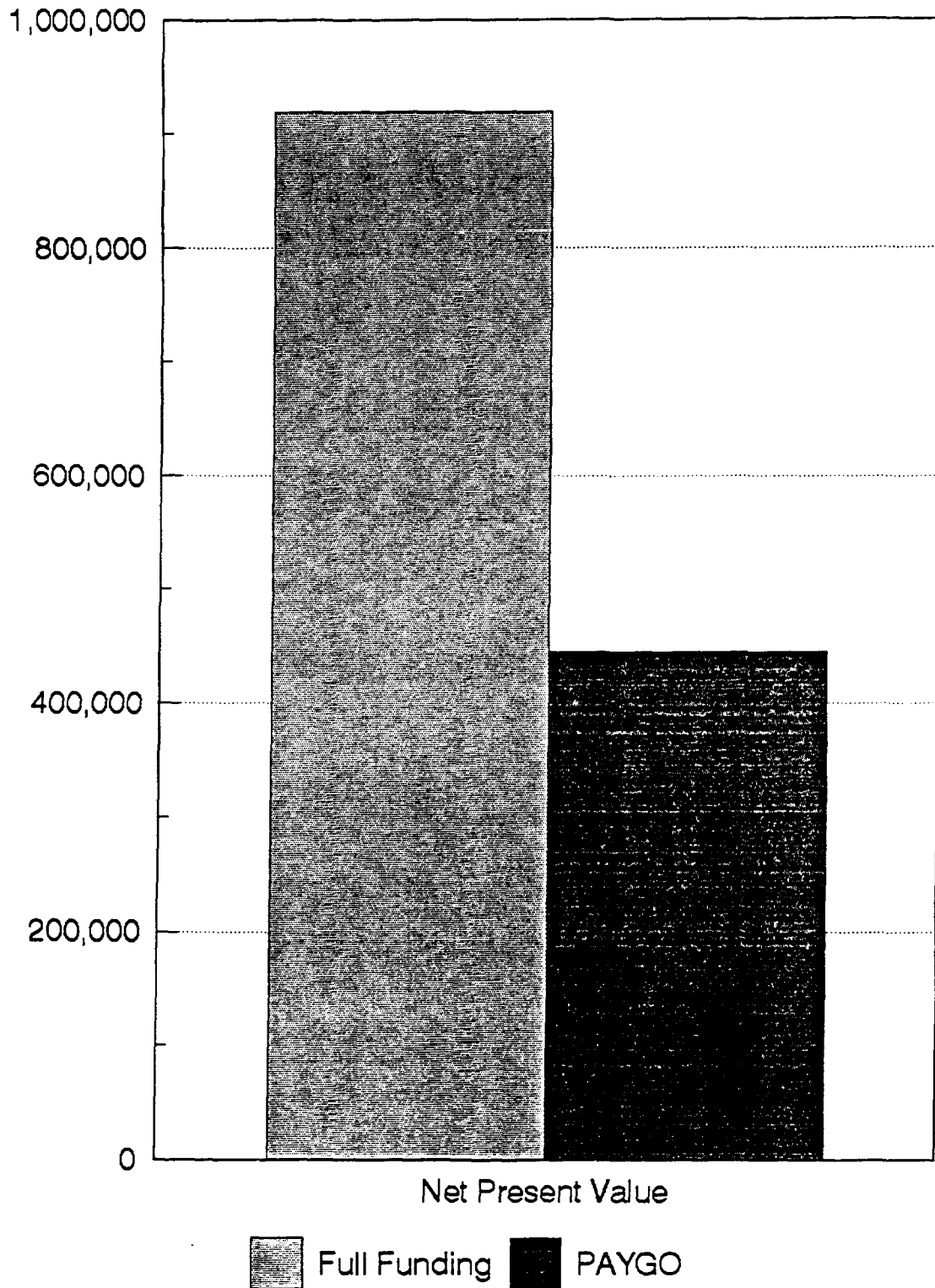
Postretirement Benefits Other than Pensions
(\$ in thousands)

	YEAR	Full FUNDING	PAYGO
	1993	85,551	22,710
	1994	85,323	24,994
	1995	85,142	27,507
	1996	85,014	29,970
	1997	84,940	32,499
	1998	84,923	35,248
	1999	84,969	37,658
	2000	85,087	40,101
	2001	85,282	42,864
	2002	85,558	45,362
	2003	85,927	48,088
	2004	86,387	51,626
	2005	86,939	55,482
	2006	87,729	59,620
	2007	88,999	63,636
	2008	89,956	68,286
	2009	91,284	71,762
	2010	92,782	76,715
	2011	94,466	81,680
	2012	96,328	87,262
	2013	98,071	93,140
	2014	99,845	99,414
	2015	101,651	106,110
@NPV	0.00%	2,052,153	1,301,734
	9.00%	919,348	445,513
	11.50%	777,318	354,236

GTEC RESPONSE TO DR 17
Attachment
SEPT. 24, 1991

GTE CALIFORNIA

Postretirement Benefits Other Than Pensions (\$ in thousands)



PACIFIC GAS & ELECTRIC

Postretirement Benefits other than Pensions

Medical Plan only (\$ in millions)

1/

Year	SFAS 106 EXPENSE	VEBA 501(c)(9) EXPENSE	PAYGO EXPENSE
1993	171.9	119.4	25.5
1994	169.8	118.1	26.2
1995	176.3	124.1	30.0
1996	183.1	130.3	34.6
1997	190.5	137.2	39.5
1998	195.2	141.9	44.6
1999	192.5	140.5	47.7
2000	202.8	150.2	56.6
2001	212.6	159.5	66.7
2002	222.4	169.2	77.9
2003	227.2	174.4	85.1
2004	224.8	174.1	88.9
2005	239.6	188.0	106.1
2006	253.3	201.5	125.9
2007	267.4	215.3	147.8
2008	278.1	226.7	159.2
2009	275.9	227.0	153.6
2010	299.2	249.4	181.4
0.00%	3,982.6	3,046.8	1,497.3
9.00%	1,798.2	1,340.6	555.0
10.76%	1,585.3	1,176.6	471.0

Source: DR. 18-pge 10/11/91

1/ includes Diablo Canyon Costs

PACIFIC GAS & ELECTRIC

Postretirement Benefits other than Pensions

Net Present Value at 10.76%

\$ in Millions

